

**ABSTRACT**

Coated cored contoured crushable structural members and methods for making the same are described. The contoured structural members comprise composite or metal materials sandwiching a support or stabilizing structure. The cored and contoured structure can be provided by tube rolling (or roll wrapping) the composite or metal materials and the support structure together and then, if necessary, bonding them or connecting them. The coating for the coated structure is provided in or on the materials making up the structural member. The structural members are made crushable by incorporating an initiator into the structural members. The structural member crushes at the location of the initiator by absorbing the energy of an exerting load. With a coated, contoured, crushable, and generally non-flat structure, applications and uses for the structural members of the present invention are nearly limitless.